

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 83-10

NPDES NO. CA0027995

REVISION OF WASTE DISCHARGE REQUIREMENTS FOR:

SIGNETICS CORPORATION
PETERSON WAY, SANTA CLARA
SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Signetics Corporation (hereinafter called the discharger), a manufacturer of printed circuits, located at 3600 Peterson Way, Santa Clara, submitted an application dated October 29, 1982 for renewal of waste discharge requirements and a permit to discharge wastes under the National Pollutant Discharge Elimination System.
2. The discharge is presently governed by Waste Discharge Requirements, Order No. 80-6 adopted by the Board on February 19, 1980.
3. The discharge consists of about 100,000 gallons per day of reject water from a reverse osmosis water purification system. This waste is discharged to a storm drain tributary to Calabazas Creek.
4. A Water Quality Control Plan for the San Francisco Bay Basin was adopted by the Board on July 21, 1982. The Basin Plan contains water quality objectives.
5. The beneficial uses of lower Calabazas Creek and South San Francisco Bay are:
 - a. Recreation
 - b. Fish migration and habitat
 - c. Wildlife habitat
 - d. Industrial water supply
 - e. Esthetic enjoyment
 - f. Navigation

6. This NPDES Permit is for reject water from a reverse osmosis water purification system which is a non-guideline category for industry. The prohibitions, specifications and provisions of this Permit are based on best professional judgement in order to implement the Federal Water Pollution Control Act and the Water Quality Control Plan for the San Francisco Bay Basin. Some effluent limitations contained in this order are derived from guidelines set by State and Federal Resource agencies to provide protection for acute and chronic aquatic toxicity. They are considered the best available technology in the judgement of the Board. Limits are subject to reconsideration when more extensive or refined guidelines are established.
7. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
8. This project is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
9. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Signetics Corporation, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Prohibitions

1. The discharge of sanitary sewage to waters of the State is prohibited.
2. The average daily flow shall not exceed 100,000 gallons per day.

B. Effluent Limitations

1. The maximum daily effluent concentration of total dissolved solids shall not exceed 1000 mg/l.
2. The effluent shall not have a pH of less than 6.5 nor greater than 8.5.
3. The effluent shall not have a chlorine residual greater than 0.0 mg/l.
4. The survival of Rainbow Trout in 96 hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place.
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within 1 foot of the water surface:
 - a. Dissolved oxygen 5.0 mg/l minimum. Three month median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. Dissolved Sulfide 0.1 mg/l maximum.
 - c. pH Variation from natural ambient pH by more than 0.5 pH units.
3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.
2. The discharger shall comply with all sections of this Order immediately.
3. The requirements prescribed by this Order supersede the requirements for this discharge which were prescribed in Order No. 80-6.
4. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977 except A.5, A.12 and B.5.
5. This Order expires April 20, 1988. The discharger must file a Report of Waste Discharge not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.
6. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from date of hearing provided the Regional Administrator of the U. S Environmental Protection Agency has no objections.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 20, 1983.

FRED H. DIERKER
Executive Officer

Attachments:

Standard Provisions & Reporting
Requirements dated April 1977
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

SIGNETICS CORPORATION

3600 PETERSON WAY, Santa Clara

SANTA CLARA COUNTY

NPDES NO. CA 0027995

ORDER NO. 83-10

CONSISTS OF

PART A dated January 1978

AND

PART B effective 3/4/80

revised 4/20/83

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. Effluent

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall from the 3600 Peterson Way property between the point of discharge and the point at which all waste tributary to that outfall is present.

II. SCHEDULE OF SAMPLING AND ANALYSIS

- A. The schedule of sampling and analysis shall be that given as Table I.
- B. Reports shall be submitted quarterly.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 83-10.
2. Does not include the following paragraphs of Part A:
C.4, C.5.c, C.5.d, C.5.e, D.4, E.4, F.3.c, and F.3.e.
3. Is effective on the date shown below.
4. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Attachment:
Table 1 (2 pages)

Effective Date _____

TABLE I

Sampling Station	E-001
TYPE OF SAMPLE	G
Flow Rate (mgd)	D
BOD, 5-day, 20° C, or COD (mg/l & kg/day)	
Chlorine Residual & Dosage (mg/l & kg/day)	D
Settleable Matter (ml/1-hr. & cu. ft./day)	
Total Suspended Matter (mg/l & kg/day)	
Oil & Grease (mg/l & kg/day)	
Coliform (Total or Fecal) (MPN/100 ml) per req't	
Fish Toxicity, 96-hr. TL ₅₀ % Survival in undiluted waste	Y
Ammonia Nitrogen (mg/l & kg/day)	
Nitrate Nitrogen (mg/l & kg/day)	
Nitrite Nitrogen (mg/l & kg/day)	
Total Organic Nitrogen (mg/l & kg/day)	
Total Phosphate (mg/l & kg/day)	
Turbidity (Jackson Turbidity Units)	
pH (units)	D
Dissolved Oxygen (mg/l and % Saturation)	
Temperature (°C)	Q
Apparent Color (color units)	
Secchi Disc (inches)	
Sulfides (if DO ≤ 5.0 mg/l) Total & Dissolved (mg/l)	
Arsenic (mg/l & kg/day)	
Cadmium (mg/l & kg/day)	
Chromium, Total (mg/l & kg/day)	
Copper (mg/l & kg/day)	
Cyanide (mg/l & kg/day)	
Silver (mg/l & kg/day)	
Lead (mg/l & kg/day)	

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001												
TYPE OF SAMPLE		O											
Mercury (mg/l & kg/day)													
Nickel (mg/l & kg/day)													
Zinc (mg/l & kg/day)													
PHENOLIC COMPOUNDS (mg/l & kg/day)													
All Applicable Standard Observations		W											
Bottom Sediment Analyses and Observations													
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)													

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
O = observation

TYPES OF STATIONS

E = waste effluent station

FREQUENCY OF SAMPLING

Y = once each year
Q = once each calendar quarter
W = once each week
D = once each day